

# NIAGARA RIVER TOXICS MANAGEMENT PLAN (NRTMP) ANNUAL WORK PLAN [1999]

The "Four Parties":    EPA = U.S. Environmental Protection Agency  
                                      DEC = New York State Department of Environmental Conservation  
                                      EC = Environment Canada  
                                      MOE = Ontario Ministry of the Environment

ACTIVITY	E P A	D E C	E C	M O E	1997-98 Commitment	Status/ Comments	1999 Commitment	Status/ Comments
<b>I. Controlling Point Sources</b>								
A. Report on U.S. Point Sources		*			Periodically		Periodically	See <i>Note A</i> (p. W-14)
B. Report on Canadian Point Sources (1994/95)				*	--	Completed Nov 96 See <i>Note B</i> (p. W-14)		
<b>II. Controlling Non-Point Sources</b>								
<b>A. Waste sites/landfills</b>								
1. Update progress report on remediation of U.S. hazardous waste sites. [Progress at most significant sites summarized below.]	*	*			May 98	Completed Nov 98	Oct 99	See "Public Involvement" section (V.B).
2. Remediate Occidental Chemical-Buffalo Ave site								
a. Complete overburden groundwater collection system.		*			Jun 98	Completed Dec 98	----	See <i>Note C</i> (p. W-14)
b. Enhance bedrock groundwater collection system.		*			Jun 98	Completed Dec 98	----	See <i>Note C</i> (p. W-14)
c. Complete remediation of contaminated soils and off-site groundwater		*			Apr 99	----->	----	See <i>Note C</i> (p. W-14)
d. Issue Corrective Measures Implementation (CMI) Permit		*			----		Apr 99	See <i>Note C</i> (p. W-14)
e. Biomonitor effectiveness of remediation using caged mussels				*	Jun 99	Final technical summary from the 1997 study.	2000	Next field survey

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3. Remediate Niagara County Refuse Disposal								
a. Approve design of remedial actions	*				----	Completed	----	
b. Start construction of site remedy	*				----	Construction began in fall 98 following completion of requirements for state assistance.	----	
c. Complete construction of site remedy.	*				Dec 98	Delayed ----->	Sep 00	
4. Remediate DuPont, Necco Park site								
a. Start designing site remediation	*				1998	Began Oct 98 following Sep 98 ROD	----	EPA amended the Record of Decision (ROD) in response to extensive public comment.
b. Start construction of final site remedy	*				1998	Delayed----->	Dec 99	
c. Complete final remedy	*				----		Sep 01	
5. Remediate Hyde Park site								
a. Complete construction of additional remedial systems (includes installing 3 additional pumping wells and force main, and additional measures as necessary).	*				----		Sep 99	See <i>Note D</i> (p. W-15)
b. Optimize well pumping rates and evaluate the containment of contaminated groundwater. Monitor groundwater level and conduct chemical sampling	*				On-going		On-going	
c. Complete all remedial systems, including optimization.	*				----		Sep 00	
d. Conduct annual survey of gorge-face seeps.	*				Jul 98	Completed	Jul 99	Next field survey
e. Biomonitor effectiveness of remediation using caged mussels				*	Jun 99	Final technical summary from the 1997 study.	2000	

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6. Remediate 102nd Street site  a. Complete containment system, including barrier wall, drainage system, landfill cap.  b. Complete leachate pumping system.  c. Complete site landscaping and optimization of the pump-and-treat system.  d. Monitor groundwater level and conduct chemical sampling.  e. Biomonitor effectiveness of remediation using caged mussels	*				 ----  May 98  ----  On-going  Jun 99	 Completed  Completed Dec 98    Final technical summary from the 1997 study.	 ----  ----  Jul 99  On-going  2000	     Eliminates potential off-site loadings   To ensure effectiveness of remedial systems.  Next field survey
7. Remediate Occidental Chemical, S-Area site  a. Finish building new City of Niagara Falls Drinking Water Treatment Plant (DWTP)  b. Demolish existing City of Niagara Falls DWTP  c. Construct eastern barrier wall  d. Complete cap and overburden drain collection system for the old DWTP property.  Grout DWTP raw water intake.  e.  f. Install final landfill cap.  g. Optimize well pumping rates and make sure that contaminated groundwater is no longer flowing off site.	 *  *  *  *  *  *  *				 ----  ----  Jul 98  ----   Sept 99  Dec 99	 Completed Mar 97  Completed Winter 98  Completed May 98    Delayed----->  Delayed----->	 ----  ----  ----  Dec 98   2000  2000  2000	         Other 3 sides of site already enclosed by barrier walls.  Completed.    See <i>Note E</i> (p. W-15)  See <i>Note E</i> (p. W-15)

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h.	Biomonitor effectiveness of remediation using caged mussels				*	Jun 99	Final technical summary from the 1997 study.	2000	Next field survey
8.	Remediate Solvent Chemical site								
a.	Complete remedial design		*			----	Underway since 1997	Sep 99	Design for asbestos removal & demolition completed in 1998. Design for off-site hot spot and 18" sewer removal nearly complete. Design completion for on-site remedial systems anticipated Sep. 99.
b.	Construct site remedy		*			Dec 98	Construction began early 1998	On-going	Asbestos removal and site demolition complete. Remedial system to include cap and groundwater pump-and-treat.
c.	Complete remedial action		*			----		Sep 00	
9.	Remediate Olin plant site								
a.	Monitor effectiveness of remedial systems.	*	*			On-going		On-going	Remedial system completed Oct 97
b.	Biomonitor effectiveness of remediation using caged mussels				*	Jun 99	Final technical summary from the 1997 study.	2000	Next field survey

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10. Remediate Buffalo Color Corporation site a. Complete site investigation b. Select site remedy c. Implement site remedy.		* * *			---- Jun 99 Dec 99		Mar 99 Aug 00 Jul 01	See <i>Note F</i> (p. W-15)  See <i>Note F</i> (p. W-15).
11. Finish implementing site remedy at Buffalo Color, Area D  a. Complete wetland restoration b. Site monitoring		*  * *			Dec 98  ---- ----	Completed Sep 98  On-going On-going	----  Sep 99 ----	Remedy included removal of river sediments, cap, groundwater collection and treatment system, barrier wall.
12. Remediate Bethlehem Steel site a. Complete site investigation b. Select site remedy c. Begin implementation of site remedy.	* * *	* * *			Dec 98 Mar 00 Dec 00	Delayed -----> Delayed -----> Delayed ----->	Apr 00 Oct 01 Dec 02	See <i>Note G</i> (p. W-15)
13. Remediate River Road and Niagara Mohawk Cherry Farm sites a. Complete construction of on-site remedy (includes capping the site with clean soil, and stabilizing the shoreline). b. Remove contaminated sediment from Niagara River. c. Complete capping of sediment disposal area and landscaping.		*  * *			Sept 98  Nov 98  Dec 98	Completed  Completed  Underway		See <i>Note H</i> (p. W-15)

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14. Remediate Gratwick Riverside Park site a. Start construction of site remedy.  b. Complete construction of site remedy  c. Biomonitor effectiveness of remediation using caged mussels		*			----  ----  Jun 99	Final technical summary from the 1997 study.	mid 99  Dec 00  2000	Bids due 3/31/99. See <i>Note J</i> (p. W-16)  Next field survey.
15. Remediate Occidental Chemical Durez - North Tonawanda site a. Complete construction of site remedy  b. Biomonitor effectiveness of remediation using caged mussels  16. Determine whether trace amounts of contaminants of concern found at 5 landfills are moving to groundwater off-site.		*  *		*  *	----  Jun 99  ----	Completed 1994. See <i>Note K</i> (p. W-16).  Final technical summary from the 1997 study.  Completed. See <i>Note L</i> (p. W-16)	2000  ----	Next field survey.
<b>B. Contaminated Sediments</b>								
1. Update NY Great Lakes Contaminated Sediments Inventory		*			Every 2 years	Data update completed Feb 98 and submitted to national database.	Annually	Inventory of data on contaminated sediments is used to prioritize sampling and remediation actions.

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<b>III. Monitoring</b>								
A. Complete report on results of Upstream/Downstream sampling	*	*	*	*	Dec 98 (for 96-97 report)	Draft report completed and reviewed. Final report in preparation	Dec 99	For 97-98 report.
B. Determine if Fort Erie sampling station is representative of toxic chemical concentrations coming from Lake Erie  C. Collect juvenile spottail shiners or other juvenile fish and analyze for toxic chemicals, according to Monitoring Plan. See <i>Note M</i> (p. W-16)  D. Track down toxic chemicals in tributaries and sewer systems to identify sources.	*	*	*	*	----	Preliminary analysis completed by EC.	Sep 99	Statistical analysis and final report to be prepared by DEC.
					MOE: Dec 98	MOE: No spottail shiners collected in 1997. Collected emerald shiners at three locations instead. Collected spottail, common and emerald shiners at various locations in 1998.	MOE Dec 99	Technical summary on 1997 and 1998 collections.
					DEC: Dec 98	DEC: Final report on 1996 collections completed Dec 98.	DEC: Jun 99	Draft report on 1997 collections. Collections to follow on a five-year basis (next in 2002)
		*			Periodically		Dec 99	Assessment of existing information and plan for next steps. See <i>Note N</i> (p. W-17)

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E.	Sample groundwater seeps coming from Niagara River Gorge face and analyze for toxic chemicals.	*				Dec 98	Completed. Sampling was conducted in 1997. Results indicated no need for additional control or remediation of the seep areas.	----	
F.	Biomonitor using caged mussels and analyze for toxic chemicals, according to Monitoring Plan. See <b>Note O</b> (p. W-17)				*	Every 3 years	1997 field work and analysis complete. Technical summary June 99.	Every 3 years	Next field survey in 2000. 1997 summary to be completed June 1999.
G.	Study use of zebra and quagga mussels as biomonitors				*	Dec 98	----->	Dec 99	Sampling and analysis completed. Report due Dec 99.
H.	Assess sport fishery in Niagara River, with contaminant analysis.			*	*	----	Sport fish collected in Niagara River in 1997-1998.	MOE: Apr 99	1997-98 analyses and "Guide to Eating Ontario Fish".
<b>IV. Define Additional Actions to Reduce Toxic Chemical Inputs to the Niagara River</b>									
A.	Develop additional materials relating information on Niagara River contamination and contaminant sources, and incorporate into NRTMP Progress Report and Work Plan.	*	*	*	*	----		Beginning May 00	See <i>Note P</i> (p. W-17)



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<b>V. Public Involvement</b>								
A. Develop a reader-friendly brochure that gives an overview of the NRTMP and summarizes progress made on restoring the Niagara River.	*	*	*	*	Dec 98	In preparation---->	Jun 99	
B. Present progress made in the remediation of U.S. hazardous waste sites at a public meeting in Niagara Falls.	*	*			Jun 98	Public meeting held Dec 98	Nov 99	See "Controlling Non-Point Sources" section (II.A.1).
C. 1. Make NRTMP information and reports available on the Internet.  2. Develop a NRTMP web page	*	*	*	*	Dec 98  ----	On-going. See <i>Note Q</i> (p. W-18)	As available  Sep 99	NRTMP web page to be developed on EPA/GLNPO web site
D. Produce a progress report on the condition of the Niagara River and NRTMP efforts to restore the river. Update annual work plan for future actions.	*	*	*	*	Feb 98	Completed.	May 99 May 00	Annually.
E. Hold a public meeting to present above progress report and updated annual work plan.	*	*	*	*	Mar 98	Completed	Jun 99 Jun 00	Annually.